



FOOD SAFETY FACT SHEET

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Cooling

The Kansas Food Code requires that all cooked foods not prepared for immediate service to be cooled as quickly as possible to keep bacteria from developing. There are two methods to cool potentially hazardous foods: the two-stage method (preferred) and the one-stage method.

Two-Stage Cooling Method

The two-stage cooling method reduces the cooked food's internal temperature in two steps. Step one is to reduce the temperature from 135°F to 70°F within two hours of preparation **and** from 135°F to 41°F within a total of six hours. Total cooling time should never exceed six hours.

One-Stage Cooling Method

The one-stage cooling method involves reducing the cooked food's internal temperature to 41°F or colder within four hours of preparation. This method should only be used if the food is prepared from ingredients at ambient temperature, such as reconstituted food and canned tuna.

When deciding how best to cool potentially hazardous foods, keep in mind the following factors:

- The size or amount of food being cooled;
- The density of the food – a broth is less dense than a casserole; and
- The container in which the food is being stored – shallow pans cool foods faster than deep pans.

To promote rapid cooling of cooked foods, the following methods are recommended in the Kansas Food Code:

- Place the food to be cooled in shallow pans;
- Separate the food to be cooled into smaller or thinner portions;
- Use rapid cooling equipment, such as blast chillers;
- Stir the food to be cooled in a container sitting in an ice bath;
- Use containers that allow heat transfer;
- Adding ice as an ingredient to the cooked food; or
- Combine one or more of the above methods.

The most important thing to remember is that the temperature of all cooked foods should be reduced to 41°F or colder as quickly as possible. The cooling time, however, should never exceed the maximum time allowed for the selected method (either four hours for the one-stage method or six hours for the two-stage method). Simply placing a cooked food in a refrigerator to cool may not be adequate to reduce the threat of bacterial growth. Also, placing a warm or hot food in a refrigerator may raise the temperature inside the refrigerator and jeopardize the safety of other stored foods. Once the food has been cooled using one or more of the recommended methods, it should be stored properly. That means it is covered and labeled with the date the product was prepared. When you prepare foods using cooked ingredients, always use older products first.